SEQUENCE LISTING

<110> Adams, Camellia W.
Carter, Paul J.
Fendly, Brian M.
Gurney, Austin L.

<120> Agonist Antibodies

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<140> US 09/138,091
<141> 1998-08-21

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<151> 1997-08-22

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Gln Gly Arg Phe Thr Ile Ser

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1 5

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<212> PRT
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Ser Tyr Tyr Trp Ser
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<211> 63
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Ser Leu Lys Ser Arg Val Thr Ile Ser
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<212> PRT
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Tyr Ile Tyr Tyr Ser Gly Ser Thr Asn Tyr Asn Pro Ser Leu Lys
1 5 10 15

Ser Arg Val Thr Ile Ser
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<211> 18
<212> DNA
<213> Homo sapiens

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<212> PRT
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<211> 42
<212> DNA
<213> Homo sapiens

<400> 48
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Thr Gly Thr Ser Ser Asp Val Gly Gly Tyr Asn Tyr
1 5 10

gtc tcc 42
Val Ser
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<210> 49
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<212> PRT
<213> Homo sapiens

<400> 49
Thr Gly Thr Ser Ser Asp Val Gly Gly Tyr Asn Tyr Val Ser
1 5 10

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<211> 21
<212> DNA
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Glu Gly Ser Lys Arg Pro Ser
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<212> DNA
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Ser Ser Tyr Thr Thr Arg Ser Thr Arg Val
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Glu Asn Glu Val Ala Arg Leu Lys Lys Leu Val Gly Glu Arg
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<400> 58
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<211> 43
<212> DNA
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<400> 63
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<210> 64
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<400> 64
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<210> 66
<211> 42
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<400> 66
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<212> DNA
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<212> PRT
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Met Gly Gly Ala Ala Ala Arg Leu Gly Ala Val Ile Leu Phe Val
1 5 10 15

Val Ile Val Gly Leu His Gly Val Arg Gly Lys Tyr Ala Leu Ala
20 25 30

Asp Ala Ser Leu Lys Met Ala Asp Pro Asn Arg Phe Arg Gly Lys
35 40 45

Asp Leu Pro Val Leu Asp Gln Leu Leu Glu Gly Gly Ala Ala His
50 55 60

Tyr Ala Leu Leu Pro Gly
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<213> Artificial Sequence

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Gly Glu Ser Leu Lys Ile Ser Cys Lys Gly Tyr Gly Tyr Ser Phe Ala
20 25 30
Thr Ser Trp Ile Gly Trp Val Arg Gln Met Pro Gly Arg Gly Leu Glu
35 40 45
Trp Met Ala Ile Met Tyr Pro Gly Asn Ser Asp Thr Arg His Asn Pro
50 55 60
Ser Phe Glu Asp Gln Val Thr Met Ser Ala Asp Thr Ser Ile Asn Thr
65 70 75 80
Ala Tyr Leu Gln Trp Ser Ser Leu Lys Ala Ser Asp Thr Ala Met Tyr
85 90 95
Tyr Cys Ala Arg Ala Gly Val Ala Gly Gly Ala Phe Asp Leu Trp Gly
100 105 110
Lys Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly Gly Ser Gly Gly
115 120 125
Gly Gly Ser Gly Gly Gly Gly Ser Gln Ser Val Leu Thr Gln Pro Ala
130 135 140
Ser Val Ser Gly Ser Pro Gly Gln Ser Ile Thr Ile Ser Cys Thr Gly
145 150 155 160
Thr Ser Ser Gly Val Gly Gly Tyr Asn Tyr Val Ser Trp Tyr Gln Gln
165 170 175
His Pro Gly Lys Ala Pro Lys Leu Leu Ile Tyr Gly Asn Ser Asn Arg
180 185 190
Pro Ser Gly Val Pro Asp Arg Phe Ser Ala Ser Lys Ser Gly Asn Thr
195 200 205

Ala Ser Leu Thr Ile Ser Gly Leu Gln Ala Glu Asp Glu Ala Asp Tyr
210 215 220
Phe Cys Ser Thr Tyr Ala Pro Pro Gly Ile Ile Met Phe Gly Gly Gly
225 230 235 240
Thr Lys Leu Thr Val Leu Gly Ala Ala
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<211> 245
<212> PRT
<213> Artificial Sequence

<220>
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Met Ala Glu Val Gln Leu Val Gln Ser Gly Gly Gly Leu Val Lys Pro
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Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser
20 25 30
Asp Tyr Tyr Met Ser Trp Ile Arg Gln Ala Pro Gly Lys Gly Leu Glu
35 40 45
Trp Val Ser Tyr Ile Ser Ser Ser Gly Ser Thr Ile Tyr Tyr Ala Asp
50 55 60
Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr
65 70 75 80
Leu Tyr Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr
85 90 95
Tyr Cys Ala Arg Trp Ser Gly Glu Asp Ala Phe Asp Ile Trp Gly Gln
100 105 110
Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly Gly Ser Gly Gly Gly
115 120 125
Gly Ser Gly Gly Gly Gly Ser Asp Ile Val Met Thr Gln Ser Pro Ser
130 135 140
Thr Leu Ser Ala Ser Val Gly Asp Arg Val Ala Ile Thr Cys Arg Ala
145 150 155 160
Ser Glu Gly Ile Tyr His Trp Leu Ala Trp Tyr Gln Gln Lys Pro Gly
165 170 175
Lys Ala Pro Lys Leu Leu Ile Tyr Lys Ala Ser Ser Leu Ala Ser Gly
180 185 190
Ala Pro Ser Arg Phe Ser Gly Ser Gly Ser Gly Ala Asp Phe Thr Leu
195 200 205
Thr Ile Ser Ser Leu Gln Pro Asp Asp Phe Ala Thr Tyr Tyr Cys Gln
210 215 220
Gln Tyr Ser Asn Tyr Pro Leu Thr Phe Gly Gly Gly Thr Lys Leu Glu
225 230 235 240
Val Lys Arg Ala Ala
245

<210> 74
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<220>
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Met Ala Glu Val Gln Leu Val Gln Ser Gly Gly Gly Val Val Gln Pro
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Gly Gly Ser Leu Ser Leu Ser Cys Ala Val Ser Gly Ile Thr Leu Arg
20 25 30
Thr Tyr Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu
35 40 45
Trp Val Ala Gly Ile Ser Phe Asp Gly Arg Ser Glu Tyr Tyr Ala Asp
50 55 60
Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr
65 70 75 80
Leu Tyr Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr
85 90 95
Tyr Cys Ala Arg Asp Arg Gly Ser Tyr Gly Met Asp Val Trp Gly Arg
100 105 110
Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly Gly Ser Gly Gly Gly
115 120 125
Gly Ser Gly Gly Gly Gly Ser Asp Ile Gln Met Thr Gln Ser Pro Ser
130 135 140
Thr Leu Ser Ala Ser Ile Gly Asp Arg Val Thr Ile Thr Cys Arg Ala
145 150 155 160
Ser Glu Gly Ile Tyr His Trp Leu Ala Trp Tyr Gln Gln Lys Pro Gly
165 170 175
Lys Ala Pro Lys Leu Leu Ile Tyr Lys Ala Ser Ser Leu Ala Ser Gly
180 185 190
Ala Pro Ser Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu
195 200 205
Thr Ile Ser Ser Leu Gln Pro Asp Asp Phe Ala Thr Tyr Tyr Cys Gln
210 215 220
Gln Tyr Ser Asn Tyr Pro Leu Thr Phe Gly Gly Gly Thr Lys Leu Glu
225 230 235 240
Ile Leu Arg Ala Ala
245

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<213> Artificial Sequence

<220>
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Met Ala Gln Val Gln Leu Val Gln Ser Gly Gly Gly Leu Val Arg Pro
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20 25 30
Thr Tyr Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu
35 40 45
Trp Val Ala Gly Ile Ser Phe Asp Gly Arg Ser Glu Tyr Tyr Ala Asp
50 55 60
Ser Val Gln Gly Arg Phe Thr Ile Ser Arg Asp Ser Ser Lys Asn Thr
65 70 75 80
Leu Tyr Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr
85 90 95
Tyr Cys Ala Arg Gly Ala His Tyr Gly Phe Asp Ile Trp Gly Gln Gly
100 105 110
Thr Met Val Thr Val Ser Ser Gly Gly Gly Gly Thr Gly Gly Gly Gly

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        115                 120                 125
Ser Gly Gly Gly Gly Ser Asp Ile Gln Met Thr Gln Ser Pro Ser Thr
    130                 135                 140
Leu Ser Ala Ser Ile Gly Asp Arg Val Thr Ile Thr Cys Arg Ala Ser
145                 150                 155                 160
Glu Gly Ile Tyr His Trp Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys
                165                 170                 175
Ala Pro Lys Leu Leu Ile Tyr Lys Ala Ser Ser Leu Ala Ser Gly Ala
            180                 185                 190
Pro Ser Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr
        195                 200                 205
Ile Ser Ser Leu Gln Pro Asp Asp Phe Ala Thr Tyr Tyr Cys Gln Gln
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Tyr Ser Asn Tyr Pro Leu Thr Phe Gly Gly Gly Thr Glu Leu Glu Ile
225                 230                 235                 240
Lys Arg Ala Ala
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<400> 76

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            20                  25                  30
Ser His Asn Met Asn Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu
        35                  40                  45
Trp Val Ser Ser Ile Ser Ser Ser Ser Ser Tyr Ile Tyr Tyr Ala Asp
    50                  55                  60
Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Ser
65                  70                  75                  80
Leu Tyr Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr
                85                  90                  95
Tyr Cys Ala Arg Asp Arg Gly Ser Thr Gly Met Asp Val Trp Gly Arg
            100                 105                 110
Gly Thr Leu Val Thr Val Ser Ser Gly Gly Gly Gly Ser Gly Gly Gly
        115                 120                 125
Gly Ser Gly Gly Gly Gly Ser Asp Ile Gln Met Thr Gln Ser Pro Ser
    130                 135                 140
Thr Leu Ser Ala Ser Ile Gly Asp Arg Val Thr Ile Thr Cys Arg Ala
145                 150                 155                 160
Ser Glu Gly Ile Tyr His Trp Leu Ala Trp Tyr Gln Gln Lys Pro Gly
                165                 170                 175
Lys Ala Pro Lys Leu Leu Ile Tyr Lys Ala Ser Ser Leu Ala Ser Gly
            180                 185                 190
Ala Pro Ser Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Xaa
        195                 200                 205
Thr Ile Ser Ser Leu Gln Pro Asp Asp Phe Ala Thr Tyr Tyr Cys Gln
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210 215 220
Gln Tyr Ser Asn Tyr Pro Leu Thr Phe Gly Gly Gly Thr Lys Leu Glu
225 230 235 240
Ile Lys Arg Ala Ala
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<220>
<223> single chain antibody (scFv) fragments

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20 25 30
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35 40 45
Trp Ile Gly Tyr Ile Tyr Tyr Ser Gly Ser Thr Asn Tyr Asn Pro Ser
50 55 60
Leu Lys Ser Arg Val Thr Ile Ser Val Asp Thr Ser Lys Ser Gln Phe
65 70 75 80
Ser Leu Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr
85 90 95
Cys Ala Arg Gly Arg Tyr Phe Asp Val Trp Gly Arg Gly Thr Met Val
100 105 110
Thr Val Ser Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly
115 120 125
Gly Gly Ser Ser Tyr Val Leu Thr Gln Pro Pro Ser Val Ser Gly Ser
130 135 140
Pro Gly Gln Ser Ile Thr Ile Ser Cys Thr Gly Thr Ser Ser Asp Val
145 150 155 160
Gly Gly Tyr Asn Tyr Val Ser Trp Tyr Gln Gln His Pro Gly Lys Ala
165 170 175
Pro Lys Leu Met Ile Tyr Glu Gly Ser Lys Arg Pro Ser Gly Val Ser
180 185 190
Asn Arg Phe Ser Gly Ser Lys Ser Gly Asn Thr Ala Ser Leu Thr Ile
195 200 205
Ser Gly Leu Gln Ala Glu Asp Glu Ala Asp Tyr Tyr Cys Ser Ser Tyr
210 215 220
Thr Thr Arg Ser Thr Arg Val Phe Gly Gly Gly Thr Lys Leu Thr Val
225 230 235 240
Leu Gly Ala Ala